TA-F335R

SERVICE MANUAL

AEP Model
E Model

SPECIFICATIONS

Amplifier

Continuous RMS power output (both channels driven simultaneously)

		Model for Germany	Model for Scandinavian countries, Switzerland, Spain and Portugal	Model for other countries
DIN, 1 kHz	4 ohms	55 W + 55 W	—	—
	8 ohms	45 W + 45 W	55 W + 55 W	55 W + 55 W
20 Hz – 20 kHz	4 ohms	—	—	—
	8 ohms	30 W + 30 W	40 W + 40 W	40 W + 40 W

Input

Input jack	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	2.0 mV	50 kilohms
TUNER, CD, AUX, DAT/TAPE 1 TAPE 2	Phono	150 mV	50 kilohms

S/N

PHONO (MM)	76 dB
TUNER, CD, AUX, DAT/TAPE 1 TAPE 2	100 dB

Output

Output jack	Jack type	Voltage/impedance
REC OUT	Phone jack	Voltage 150 mV Impedance 1 kohm
SPEAKERS	—	Model for Scandinavian countries, Switzerland, Spain and Portugal/Except for Germany model: 8 – 16 ohms Model for other countries /Model for Germany : 4 – 16 ohms
HEADPHONES	Stereophone jack	Accepts low and high impedance headphones

Tone controls

	Response	Turnover frequency
BASS	±7 dB (100 Hz)	300 Hz
TREBLE	±6 dB (10 kHz)	5 kHz

Harmonic distortion — Less than 0.03 % at 10 W output

Intermodulation (IM) distortion (60 Hz : 7 kHz = 4:1) — Less than 0.03 % at 10 W output

Frequency response — PHONO: RIAA equalization curve ±0.5 dB
TUNER, CD, AUX, DAT/TAPE 1, TAPE 2: 7 Hz – 100 kHz +1 -3 dB

Residual noise — Less than 170 µV (network A)

Damping factor — 50 (8 ohms, 1 kHz)

General

System — Preamplifier: Low-noise, equalizer amplifier
Power amplifier: Pure-complementary SEPP OCL power amplifier with all stages directly coupled

Power requirements — Models for European countries : 220 V – 230 V AC, 50/60 Hz
Models for other countries: 120 V, 220 V or 240 V AC adjustable, 50/60 Hz

Power consumption — Model for Germany: 140 W
Model for other countries : 100 W

— Continued on page 2 —

MICROFILM

INTEGRATED STEREO AMPLIFIER

SONY®

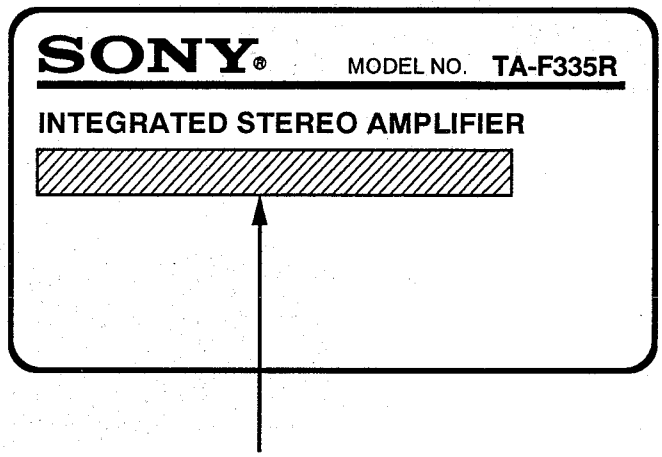
Dimensions	Approx. 430 x 135 x 315 mm (w/h/d) (17 x 5 3/8 x 12 1/2 inches)
Mass	Approx. 6.4 kg (14 lb 2 oz)
Supplied accessories	Remote commander RM-S311 (1) Sony SUM-3 (NS) batteries (2)

The above values are measured at 230 V AC. (Models for European countries)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

MODEL IDENTIFICATION
– Specification Label Printed on Back Panel –



AEP, Germany model : AC : 220-230V~50/60Hz
E model : AC : 120/220/240V~50 /60Hz

Note :
There are two type of AEP models which are depend on countries.
AE2 model : Model for Scandinavian countries, Switzerland, Spain and Portugal
AE1 model : Model for other European countries

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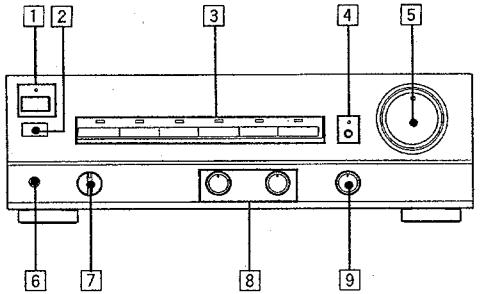
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

This section is extracted from instruction manual.

Identifying the Parts and Controls

This section describes about each name of this amplifier and remote commander.



Front Panel

[1] POWER switch and STANDBY indicator

[2] Remote control sensor

[3] Function selectors and indicators (MONITOR indicator: only for TA-F335R)
DAT/TAPE 1
TAPE 2
AUX
CD
TUNER
PHONO

[4] SOURCE DIRECT button and indicator

[5] VOLUME control and indicator
Adjusts the sound level.
After turning on the POWER switch, the VOLUME indicator lights up.

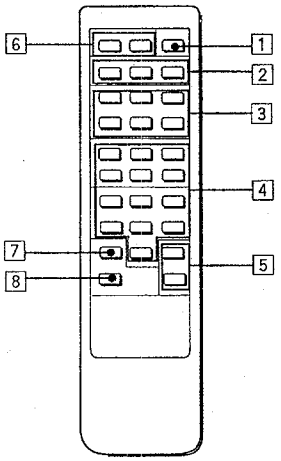
[6] HEADPHONES jack

[7] SPEAKERS selector

[8] TONE (BASS/TREBLE) controls

[9] BALANCE control

Identifying the Parts and Controls



Remote Commaner

[1] POWER switch

[2] TUNER operation buttons
TUNER: Select the TUNER mode.
PRESET +/– buttons: Select the preset station.

[3] CD operation buttons
I◄◄/►►I: Automatic music sensor.
D. (Disc) SKIP: Disc skip (for CD player equipped with a multi-disc changer)
►: The amplifier enters the CD mode and the CD player starts playback automatically.
■: Stop.
II: Pause.

[4] TAPE 2 DECK A/DECK B operation buttons
◄◄/►►: Fast winding.
■: Stop.
◄: The amplifier enters the TAPE 2 mode and the tape deck starts reverse playback automatically.
►: The amplifier enters the TAPE 2 mode and the tape deck starts forward playback automatically.
●: Recording.
II: Pause. (Only for DECK B)

[5] VOL (Volume) +/– buttons

[6] PHONO operation buttons
START: Pressing START automatically selects the PHONO mode on the amplifier and starts playback of the turntable system.
STOP: Stops playback of the turntable system.

[7] DAT/TAPE 1 button
Selects the DAT or TAPE 1 mode.

[8] AUX button
Selects the AUX mode.

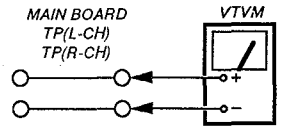
SECTION 2
ELECTRICAL ADJUSTMENTS

Note :

1. DC BIAS adjustments should be made within 2 to 3 minutes after the POWER switch is turned on (POWER ON).
2. After replacing the power transistors, DC BIAS adjustments should be made.

DC Bias Adjustment (with no signal input)

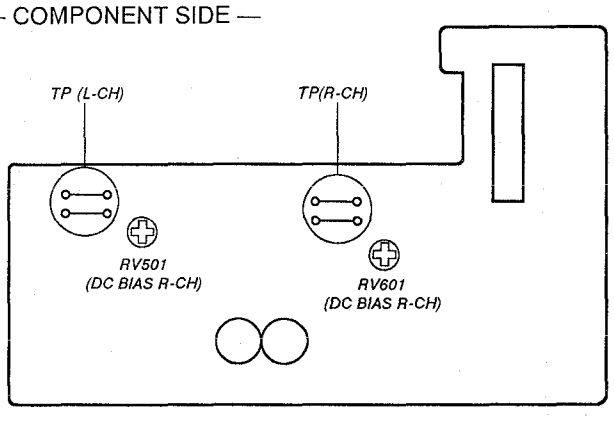
Procedure :



	Adjustment Part	Reading on VTVM
L-CH	RV501	6.5mV
R-CH	RV601	6.5mV

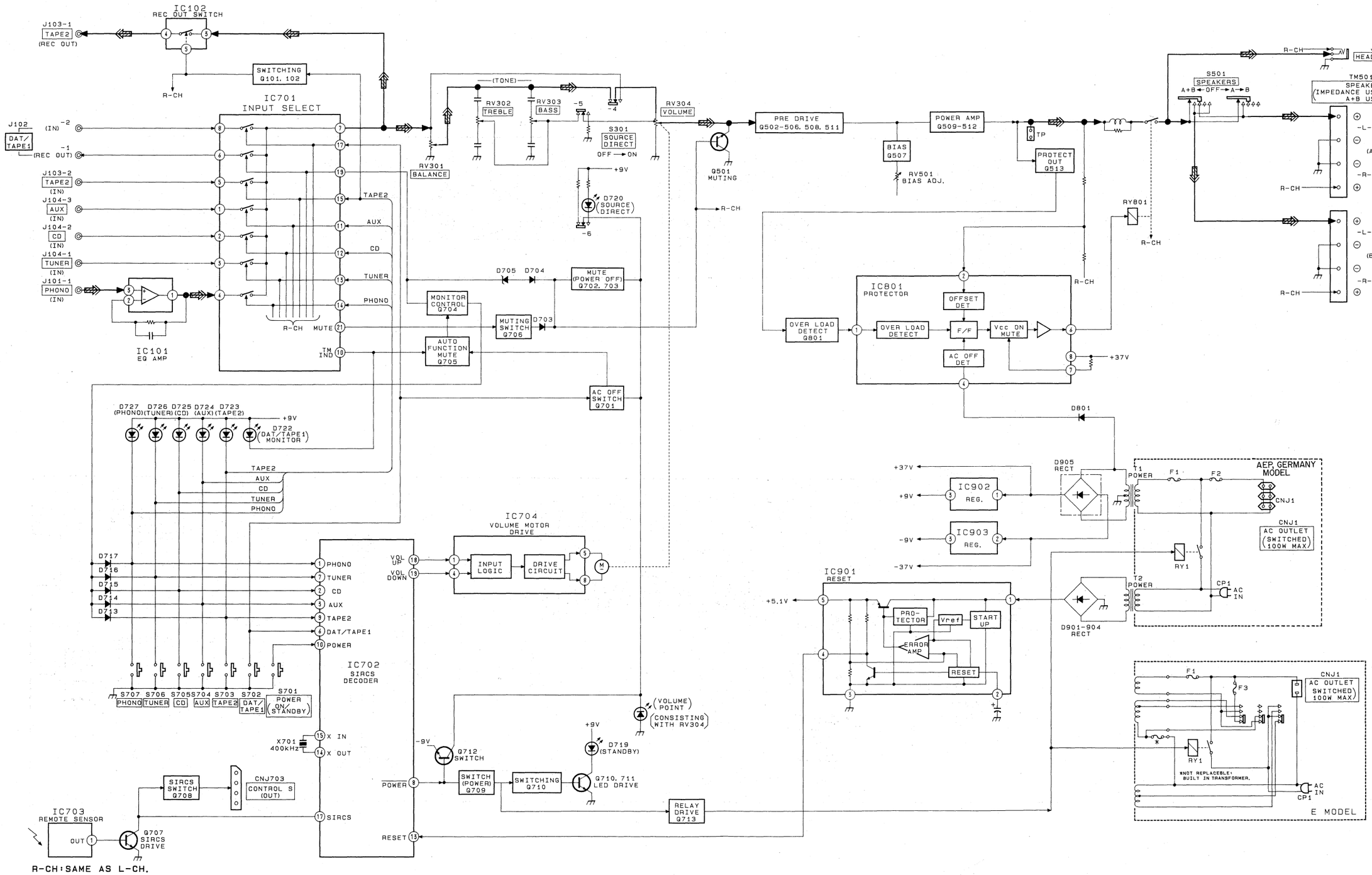
[MAIN BOARD]

— COMPONENT SIDE —



SECTION 3
DIAGRAMS

3-1. BLOCK DIAGRAM



R-CH:SAME AS L-CH.

02

3-2. CIRCUIT B

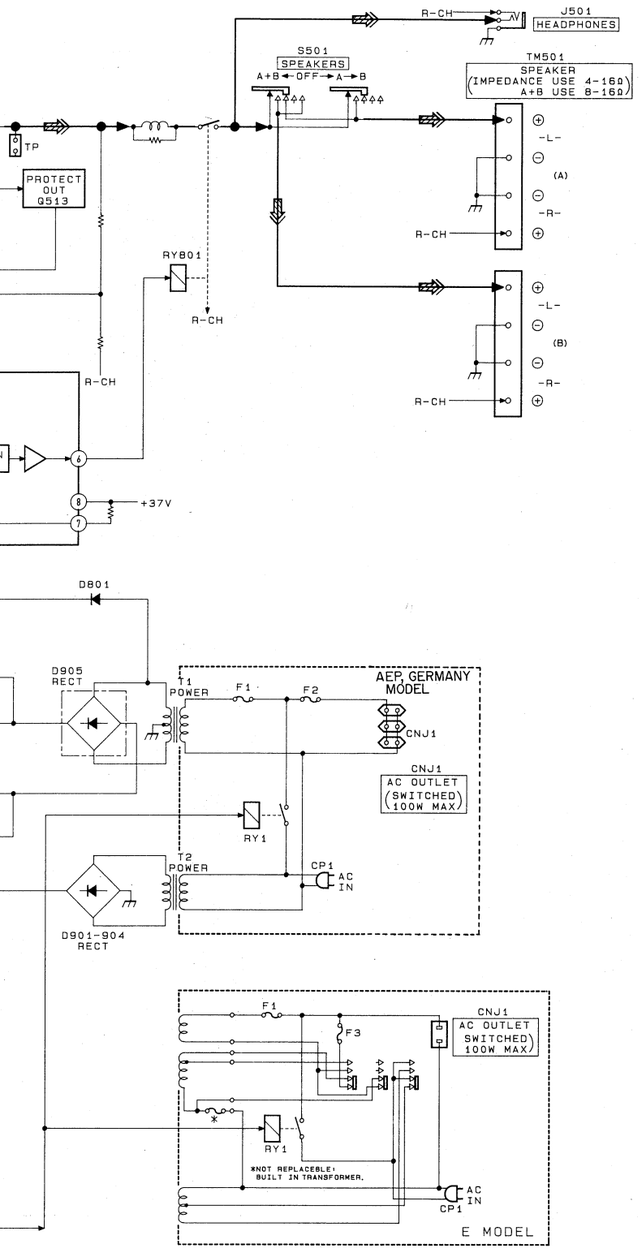
TRAN

FUNC

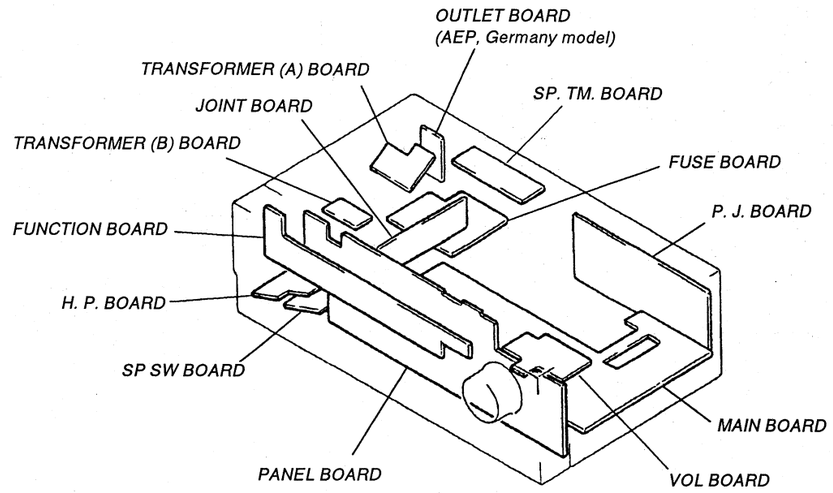
● IC702 Funct

Micro Processor
and power on/sta

Pin No.	Pi
1	PHO
2	CD
3	AUX
4	CN V
5	Vss
6	TAPI
7	TUN
8	POW
9	TAPI
10	POW
11	MOD
12	NC
13	RESE
14	X OU
15	X IN
16	NC
17	SIRC
18	VOL
19	VOL
20	VDD



3-2. CIRCUIT BOARDS LOCATION



● IC702 Function Controller (M50761-291P)

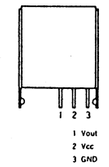
Micro Processor M5076-291P is used for control the volume up/down, function select and power on/standby by SIRCS code signal input and power on/standby key code signal input.

Pin No.	Pin Name.	I/O	Description
1	$\overline{\text{PHONO}}$	O	Function select output. (one-shot output) (L: PHONO)
2	$\overline{\text{CD}}$	O	Function select output. (one-shot output) (L: CD)
3	$\overline{\text{AUX}}$	O	Function select output. (one-shot output) (L: AUX)
4	CN Vss	–	Ground
5	Vss	–	Ground
6	$\overline{\text{TAPE1}}$	O	Function select output. (one-shot output) (L: TAPE1)
7	$\overline{\text{TUNER}}$	O	Function select output. (one-shot output) (L: TUNER)
8	$\overline{\text{POWER}}$	O	Power supply ON/OFF relay (RY1) control output. (L: POWER ON, H: POWER OFF)
9	$\overline{\text{TAPE2}}$	O	Function select output. (one-shot output) (L: TAPE)
10	$\overline{\text{POWER IN}}$	I	POWER ON/STANDBY key switch input.
11	MODE	I	Function select input. This model is used "H" level only.
12	NC	–	Ground
13	RESET	I	Reset signal input.
14	X OUT	O	Ceramic viblator connection terminal. (400Hz)
15	X IN	O	Ceramic vibrator connection terminal. (400Hz)
16	NC	–	Ground
17	SIRCS	I	SIRCS code signal input. (serial input)
18	$\overline{\text{VOL UP}}$	O	Volume motor up tontrol output. (contineous output)
19	$\overline{\text{VOL DOWN}}$	O	Volume motor down control output. (contineous output)
20	VDD	–	+5V power supply.

	POWER ON/OFF mode
H	USED
L	NOT USED

• SEMICONDUCTOR LEAD LAYOUTS

GP1U52XB



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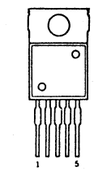

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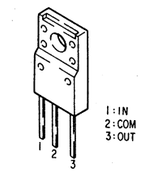

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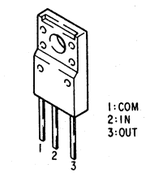
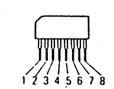


μ PC1237HA



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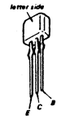
DTC124ES
2SC2603-EF
2SC3622A-LK
2SC4048

DTA124ES
DTC114TS
2SA1175-HFE



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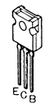
2SC1841-PAFAEA
2SC2229-OY-TPE6

2SA979-FG

2SA988PAFAEA

2SA1837
2SC4793



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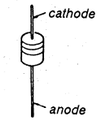

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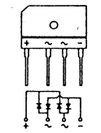

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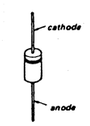
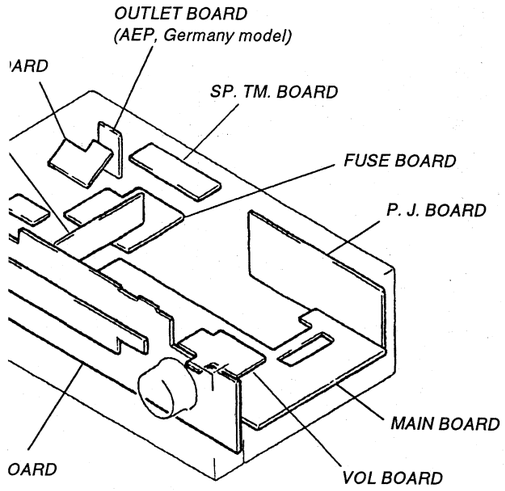




e volume up/down, function select and power on/standby by SIRCS code signal input

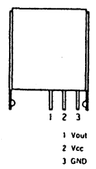
Description
t output. (one-shot output) (L: PHONO)
t output. (one-shot output) (L: CD)
t output. (one-shot output) (L: AUX)
t output. (one-shot output) (L: TAPE1)
t output. (one-shot output) (L: TUNER)
ON/OFF relay (RY1) control output.
)N, H: POWER OFF)
t output. (one-shot output) (L: TAPE)
STANDBY key switch input.
t input. This model is used "H" level only.

	POWER ON/OFF mode
H	USED
L	NOT USED

put.
tor connection terminal. (400Hz)
tor connection terminal. (400Hz)
gnal input. (serial input)
up tontrol output. (contineous output)
down control output. (contineous output)
pply.

• SEMICONDUCTOR LEAD LAYOUTS

GP1U52XB



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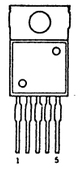

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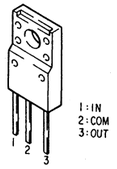

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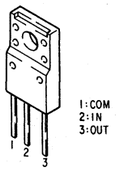


μ PC1237HA

DTC114ES
DTC124ES
2SC2603-EF
2SC3622A-LK
2SC4048

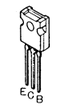
DTA124ES
DTC114TS
2SA1175-HFE

2SA949-OY-TPE6
2SC1841-PAFAEA
2SC2229-OY-TPE6

2SA979-FG

2SA988PAFAEA

2SA1837
2SC4793



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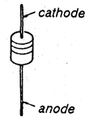

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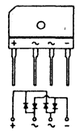

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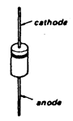

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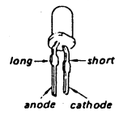

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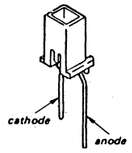
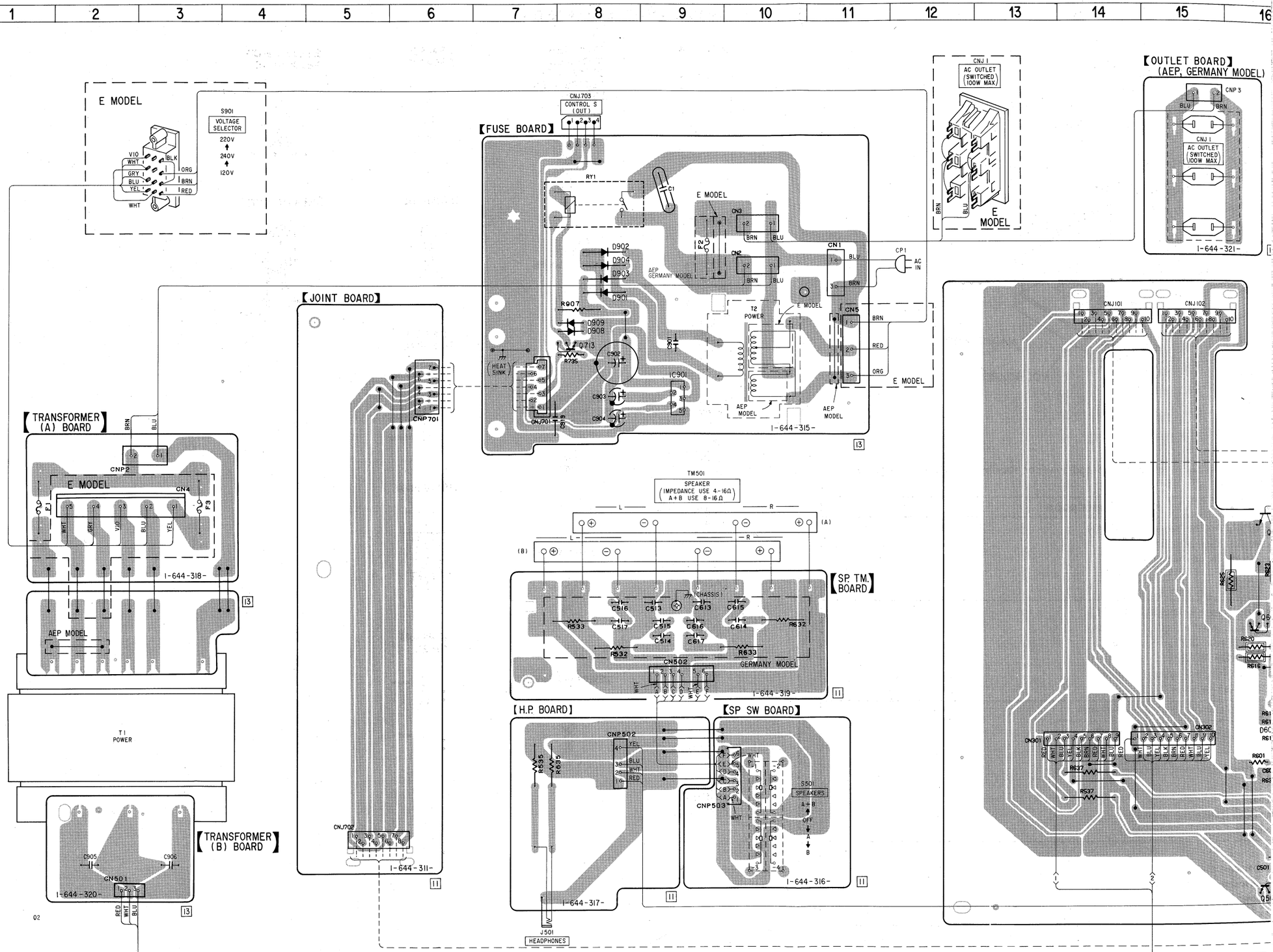


3-3. PRINTED WIRING BOARDS

• Refer to See Page 8 for Semiconductor Lead Layouts.

• SEMICONDUCTOR LOCATION

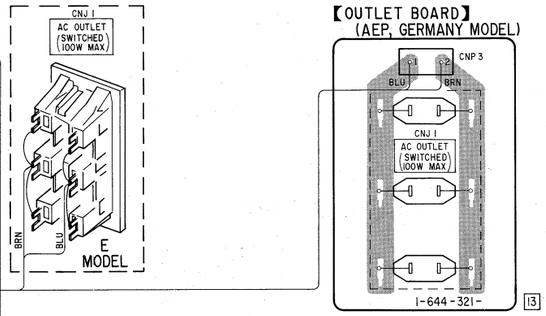
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D501	H – 21	D903	C – 8	Q605	I – 16
D502	H – 23	D904	C – 8	Q606	H – 16
D503	H – 23	D905	J – 18	Q607	F – 17
D504	I – 23	D906	H – 20	Q608	H – 17
D601	I – 16	D907	H – 19	Q609	H – 16
D602	H – 18	D908	D – 8	Q610	H – 18
D603	G – 18	D909	D – 8	Q611	F – 16
D604	G – 19			Q612	F – 18
D701	C – 17			Q613	G – 18
D702	D – 17	IC101	D – 23	Q614	I – 17
		IC102	D – 21		
D703	C – 17	IC701	D – 19	Q701	B – 17
D704	C – 17	IC702	I – 27	Q702	D – 17
D705	C – 17	IC703	C – 25	Q703	D – 17
D706	E – 17			Q704	E – 18
D707	C – 33	IC704	G – 35	Q705	E – 18
		IC801	J – 22		
D708	C – 29	IC901	E – 9	Q706	E – 17
D709	C – 30	IC902	K – 17	Q707	H – 27
D710	C – 31	IC903	J – 17	Q708	H – 27
D711	C – 34			Q709	I – 25
D712	C – 35			Q710	I – 25
		Q101	D – 18		
D713	J – 27	Q102	D – 18	Q711	I – 25
D714	J – 27	Q501	K – 16	Q712	J – 25
D715	J – 27	Q502	H – 22	Q713	D – 8
D716	J – 27	Q503	H – 22	Q801	J – 22
D717	J – 27				
		Q504	H – 23		
D718	H – 27	Q505	H – 21		
D719	D – 25	Q506	H – 21		
D720	C – 37	Q507	F – 21		
D722	C – 27	Q508	H – 22		
D723	C – 29				
		Q509	G – 21		
D724	C – 30	Q510	G – 23		
D725	C – 32	Q511	F – 20		
D726	C – 33	Q512	F – 22		
D727	C – 35	Q513	G – 23		
D728	I – 25				
D801	J – 20	Q514	I – 21		
D802	J – 23	Q601	J – 16		
D803	J – 23	Q602	I – 17		
D901	D – 8	Q603	I – 17		
D902	C – 8	Q604	I – 17		



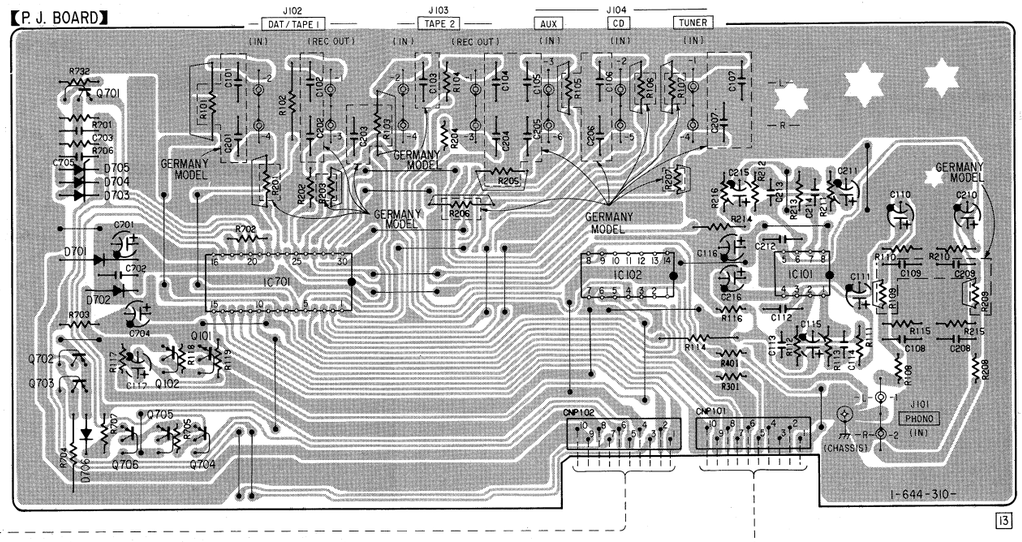
Note:

- ○— : parts extracted from the component side.
- ▒▒▒ : Pattern on the side which is seen.

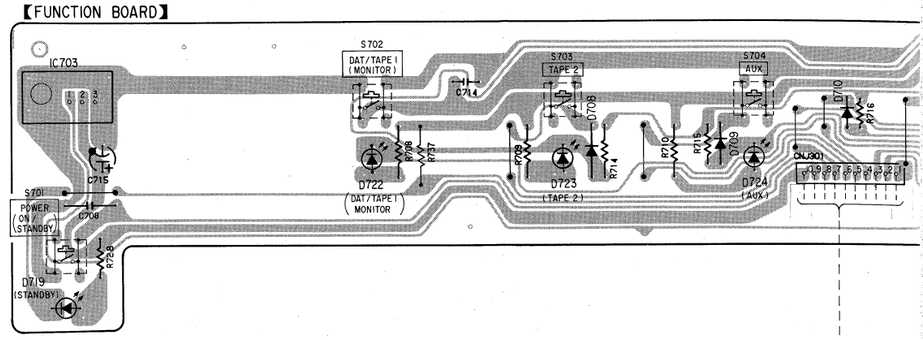
【OUTLET BOARD】
(AEP, GERMANY MODEL)



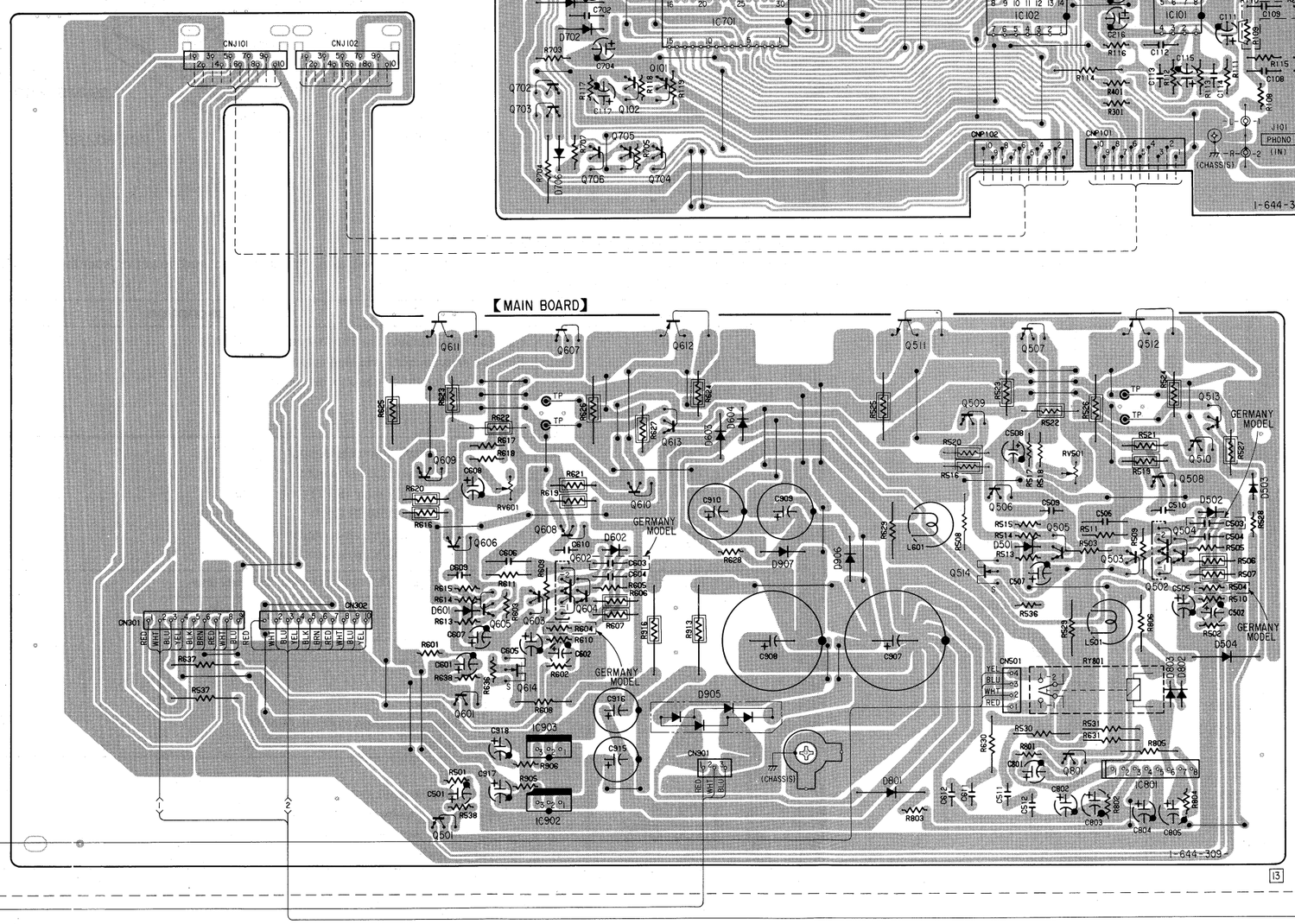
【P. J. BOARD】



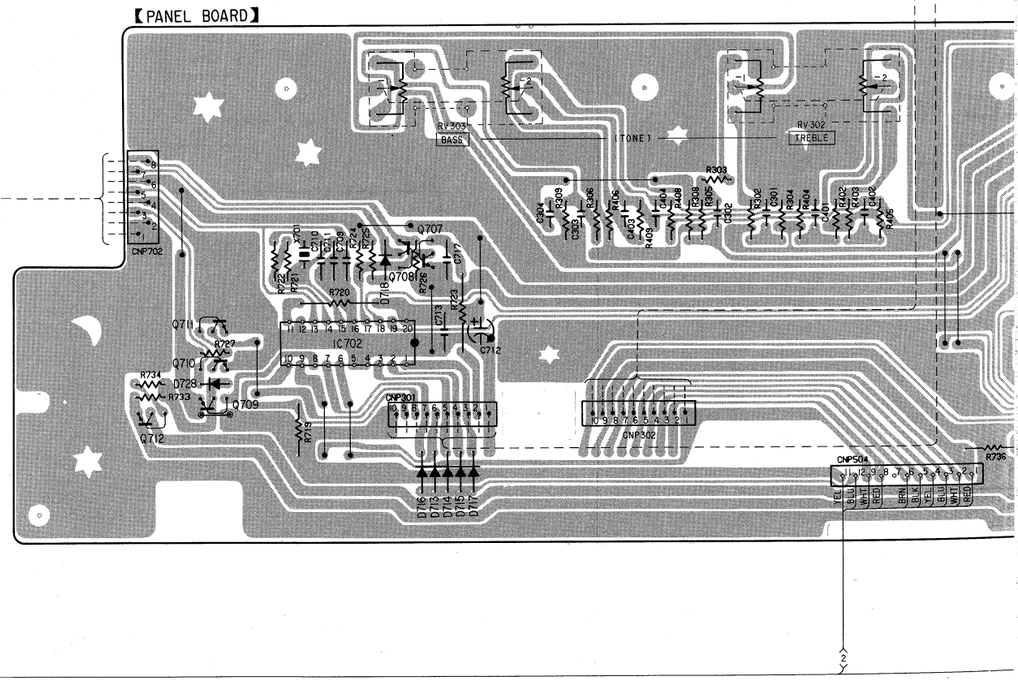
【FUNCTION BOARD】

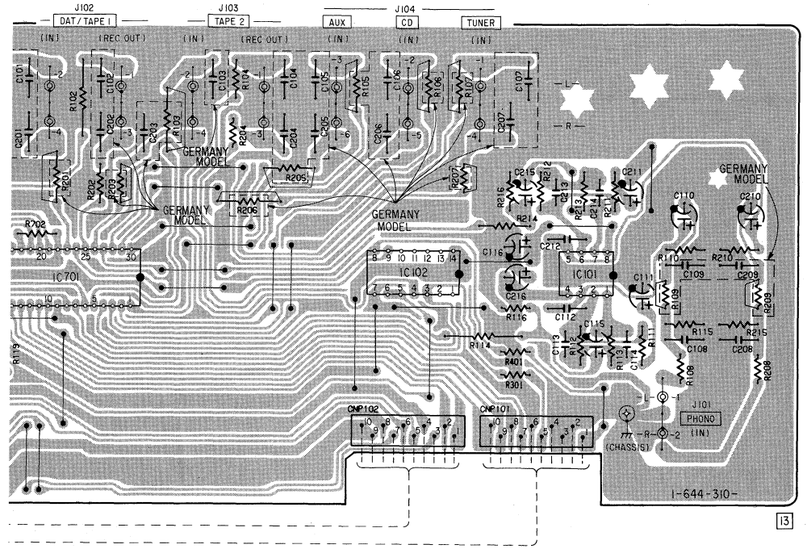


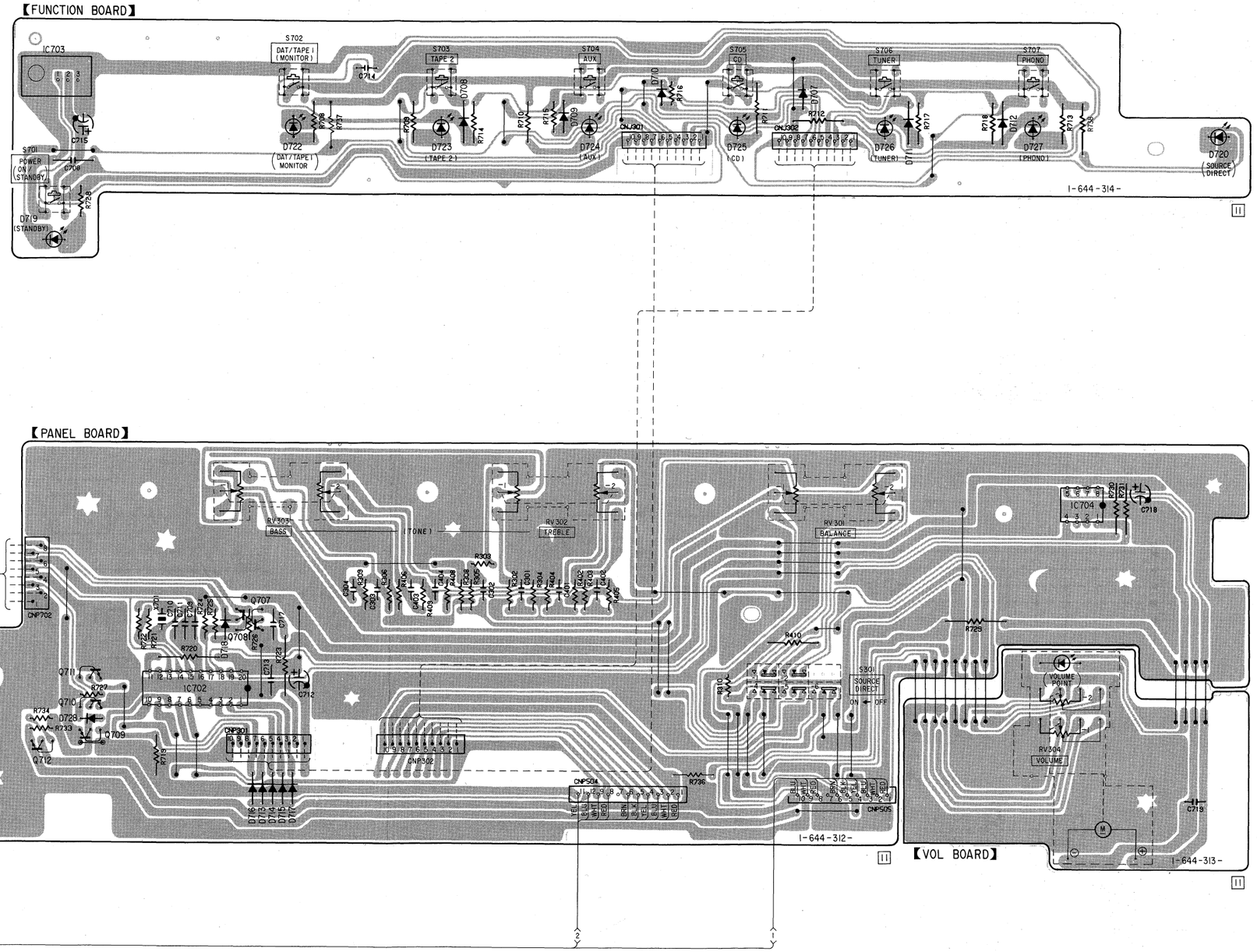
【MAIN BOARD】

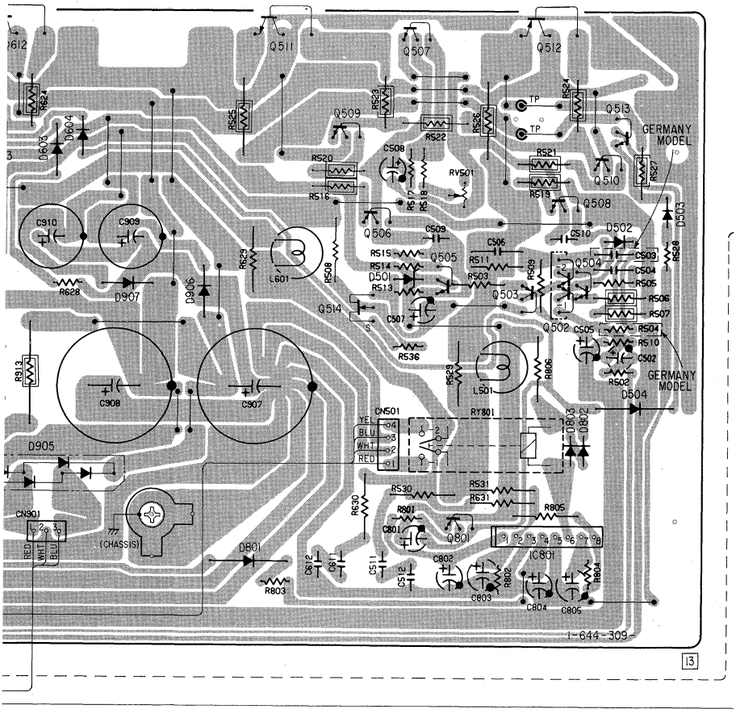


【PANEL BOARD】




J102
DAT / TAPE 1
(IN)
(REC OUT)
J103
TAPE 2
(IN)
(REC OUT)
J104
AUX
(IN)
CD
(IN)
TUNER
(IN)
GERMANY MODEL
IC701
IC102
IC101
CNP102
CNP101
J101
PHONO
(IN)
(CHASSIS)
1-644-310-
13


【FUNCTION BOARD】
IC703
S702
DAT / TAPE 1
(MONITOR)
S703
TAPE 2
S704
AUX
S705
CD
S706
TUNER
S707
PHONO
S701
POWER
ON /
STANDBY
D719
(STANDBY)
D722
(DAT/TAPE1
MONITOR)
D723
(TAPE 2)
D724
(AUX)
D725
(CD)
D726
(TUNER)
D727
(PHONO)
D720
(SOURCE
DIRECT)
OMJ301
OMJ302
1-644-314-
11
【PANEL BOARD】
RV303
BASS
(TONE)
RV302
TREBLE
RV301
BALANCE
IC704
IC702
CNP702
CNP301
CNP302
CNP504
CNP505
S301
SOURCE
DIRECT
ON ← OFF
VOLUME
POINT
RV304
VOLUME
1-644-312-
11
【VOL BOARD】
1-644-313-
11


GERMANY MODEL
CN501
CN901
(CHASSIS)
1-644-309-
13

● Refer to See Page 19 for IC Block Diagrams.

【P. J. BOARD】

【PANEL BOARD(1/2)】

【FUNCTION BOARD(1/2)】

【VOL BOARD(1/2)】

【JOINT BOARD】

IC101 EQ AMP

IC102 REC OUT SWITCH

IC701 INPUT SELECT

IC702 M50761-291P SIRCS DECODER

IC703 REMOTE SENSOR

—L-CH—

—R-CH—

J102 DAT/TAPE1 (IN) (REC OUT)

J103 TAPE2 (IN) (REC OUT)

J104-3 AUX (IN)

J104-2 CD (IN)

J104-1 TUNER (IN)

J101-1 PHONO (IN)

J101-2 PHONO (IN)

J104-4 TUNER (IN)

J104-5 CD (IN)

J104-6 AUX (IN)

GERMANY MODEL

Q101, 102 SWITCHING

Q701 2SA1175 MUTING SWITCH

Q702, 703 MUTE (POWER OFF)

—(TONE)—

RV301 BALANCE

RV302 TREBLE

RV303 BASS

D722 SEL3810A-TH12
D723-727 SEL3810C-TH12
D719 SEL3210S-TH12

D707-717 1N4148M

D718, 728 1N4148M

S707 PHONO
S706 TUNER
S705 CD
S704 AUX
S703 TAPE2
S702 DAT/TAPE1 (MONITOR)
S701 POWER (ON/STANDBY)

Q712 2SC2785 SWITCH

Q709 2SA1346 SWITCH (POWER)

Q708 2SC3860 SIRCS SWITCH

Q707 2SC3860 SIRCS DRIVE

Q711 2SC3402 LED DRIVE

Q710 2SC4048 SWITCHING

Q713 2SC2785 RELAY DRIVE

(VOLUME POINT) CONSISTING WITH RV304

02

9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20

【PANEL BOARD(1/2)】

【FUNCTION BOARD(1/2)】

S301
SOURCE DIRECT
OFF → ON

R738 680 1/2W
D720 SEL3810A-TH12 (SOURCE DIRECT)
R736 1.5k

—(TONE)—
RV301 BALANCE
RV302 TREBLE
RV303 BASS
RV304 VOLUME

【MAIN BOARD】

Q503 CURRENT REG.
Q502 PRE DRIVE
Q504 CURRENT MIRROR
Q601 2SC3622A MUTING
Q604 CURRENT MIRROR
Q602 PRE DRIVE
Q603 CURRENT REG.
GERMANY MODEL
Q505 BIAS
Q506,508-510 DRIVER
Q507 2SD2012 DC BIAS
Q511, 512 FINAL AMP
Q513 PROTECT OUT
Q606,608-610 DRIVER
Q605 BIAS
Q611, 612 FINAL AMP
Q613 PROTECT OUT
470 (GERMANY MODEL)
390 (AEP,E MODEL)

【SP SW

【SP. TM

IC801
PROTECTOR
#PC1237HA
Q801 2SA1346 OVER LOAD DETECT

【TRANSFORMER (B)BOARD】
【TRANSFORMER (A)BOARD】

F1 T1.6AL
F2 T2.5AL
F3 T1.6AL
T1 POWER
T2 POWER
D801 10E2N
D805 RBV-602 RECT
D901-904 RECT
D905, 906 1N4148M
RY1
S801 VOLTAGE SELECTOR 220V 240V 120V
AC OUTLET (SWITCHED 100W MAX)
CNJ1
CN1
CP1
CN4
CN8

【VOL BOARD(1/2)】

Q702, 703 MUTE (POWER OFF)
Q703 2SA1346
Q702 2SA1346
Q705 2SA1346
Q704 2SA1346
Q706 AC OFF SWITCH
Q705 AUTO FUNCTION MUTE
Q704 MONITOR CONTROL

IC704
LB1639
VOLUME MOTOR DRIVE

IC702
761-291P
S DECODER

【OUTLET BOARD】

IC901
L78MR05
RESET

Q712 2SC2785 SWITCH
Q713 2SC2785 RELAY DRIVE
(VOLUME POINT)
(CONSISTING WITH RV304)

AEP, GERMANY MODEL

【JOINT BOARD】
BOARD(1/2)】

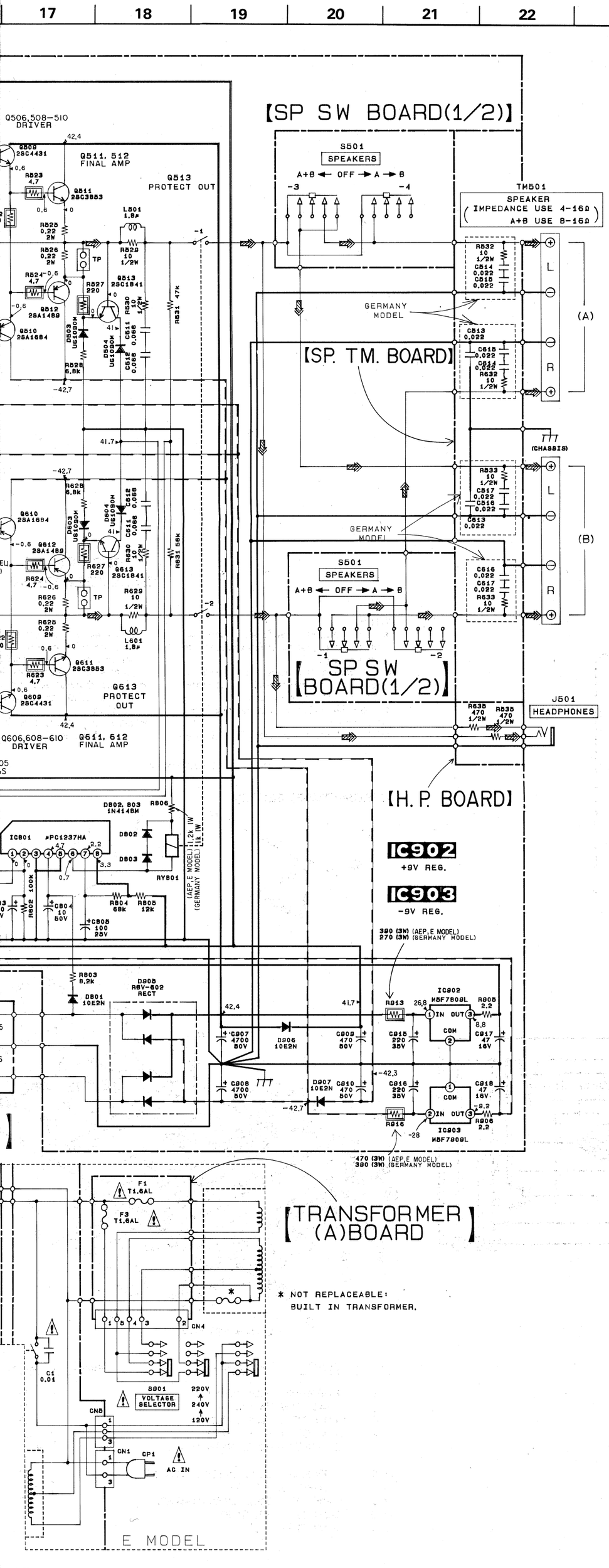
CNJ703
CONTROL S (OUT)

【FUSE BOARD】

AEP, GERMANY MODEL

E MODEL

* NOT REPLACEAB
BUILT IN TRAN



* NOT REPLACEABLE:
BUILT IN TRANSFORMER.

Note :

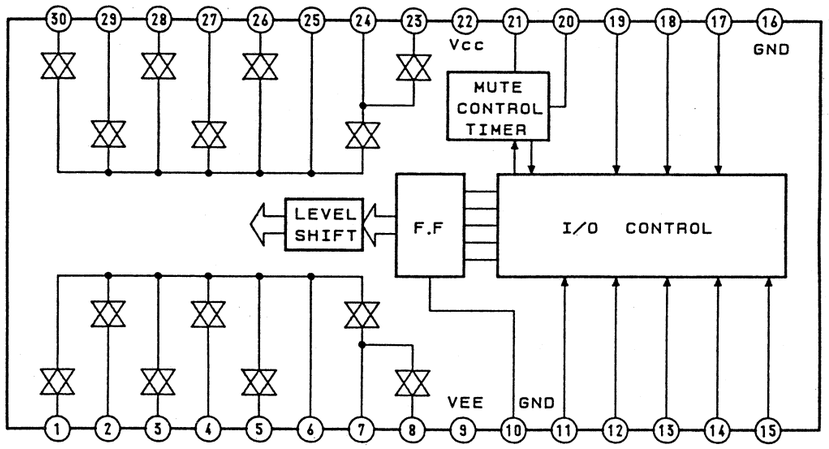
- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

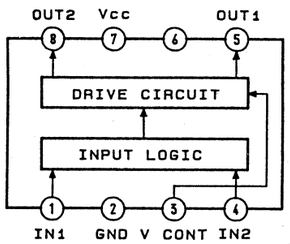
- : B+ Line
- : B − Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : CD
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : PHONO

3-5. IC BLOCK DIAGRAM

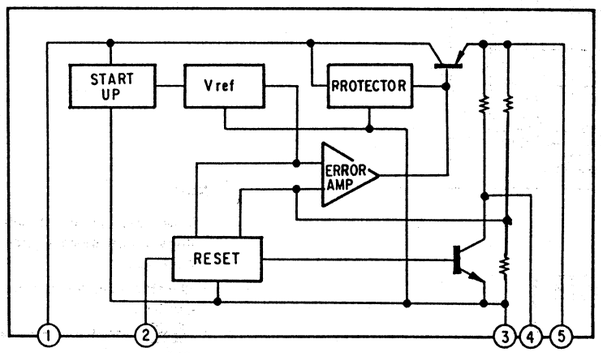
IC701 LC7818



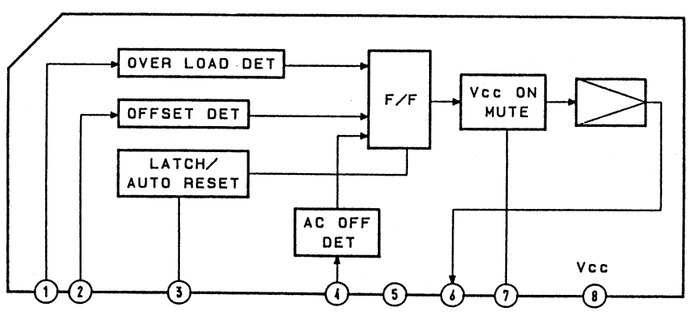
IC704 LB1639



IC901 L78MR-05



IC801 UPC1237HA



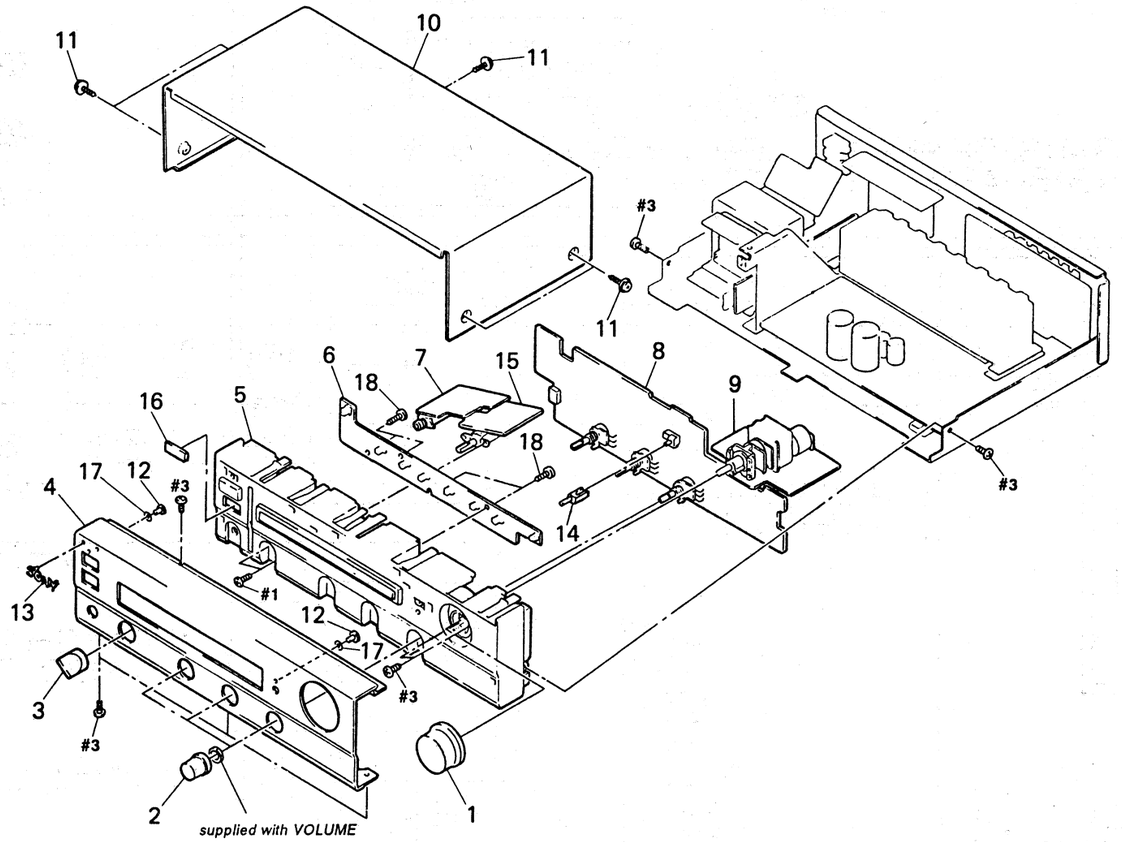
SECTION 4
EXPLODED VIEWS

NOTE :
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts Example :
  KNOB, BALANCE (WHITE)....(RED)
  ↑ Parts color ↑ Cabinet's color
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark)list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

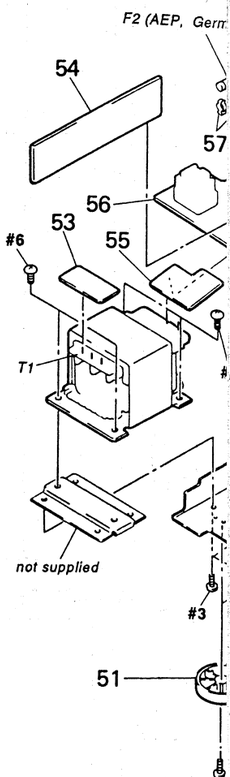
- AE2 : Model for Scandinavian countries, Switzerland, Spain and Portugal
- AE1 : Model for other European countries

4-1. FRONT PANEL SECTION



Ref.No.	Part No.	Description	Remark
1	X-4942-798-1	KNOB (R53) ASSY	
2	4-945-173-01	KNOB (R21)	
3	4-916-745-01	KNOB (DIA.21)	
4	4-957-885-01	PANEL, FRONT	
5	X-4942-672-1	PANEL (BASE) ASSY	
* 6	A-4360-605-A	FUNCTION BOARD, COMPLETE	
* 7	1-644-317-11	H.P. BOARD	
* 8	A-4360-603-A	PANEL BOARD, COMPLETE	
* 9	1-644-313-11	VOL BOARD	
10	4-929-294-11	CASE	
11	3-704-366-01	SCREW (CASE) (M3X8)	
12	4-938-518-01	INDICATOR (C)	
13	4-942-568-01	EMBLEM (NO.5), SONY	
14	4-952-242-01	BUTTON (S/D)	
* 15	1-644-316-11	SP.SW. BOARD	
16	4-931-911-01	FILTER	
* 17	4-927-881-01	SHEET, ADHESIVE	
18	4-951-620-01	SCREW (2.6X8), +BVTP	

4-2. CHASSIS SECTION

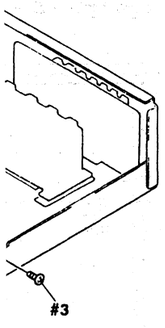


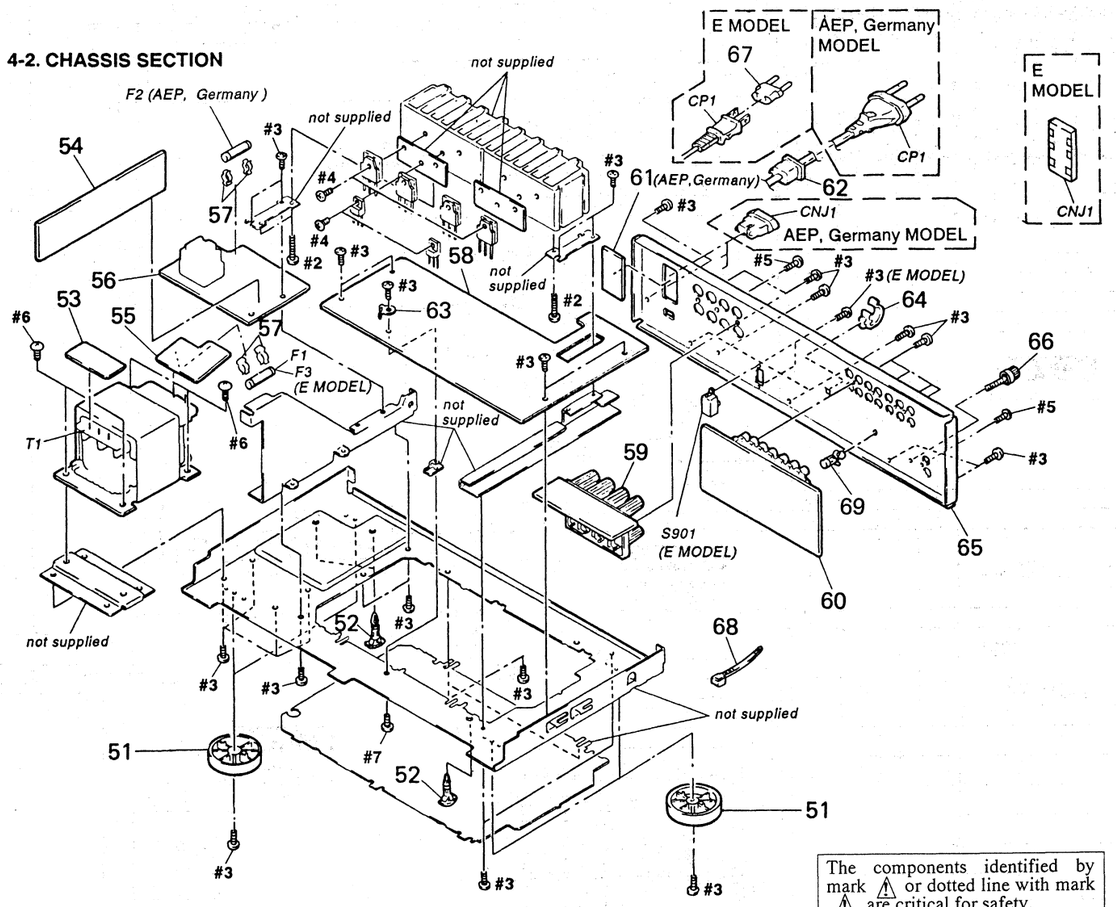
Ref.No.	Part No.	Des
51	4-956-885-11	FOO
* 52	3-704-198-31	SUP
* 53	1-644-320-11	TRA
* 54	1-644-311-11	JOI
* 55	1-644-318-11	TRA
* 56	1-644-315-11	FUS
* 57	1-533-213-31	HOL
* 58	A-4360-600-A	MAI
* 58	A-4360-613-A	MAI
* 59	1-644-319-11	SP.
* 60	A-4360-614-A	P.J.
* 60	A-4360-601-A	P.J.
* 61	1-644-321-11	OUT
* 62	3-703-244-00	BUS
* 62	3-703-571-11	BUS
* 63	4-942-204-01	PLA
* 64	4-949-235-01	HOO
* 65	4-957-886-01	PAN

identified by
l line with mark
r safety.
h part number

candinavian
Switzerland,
Portugal
ther European

4-2. CHASSIS SECTION





The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
51	4-956-885-11	FOOT (F58175S2W)	
* 52	3-704-198-31	SUPPORT, PC	
* 53	1-644-320-11	TRANSFORMER (B) BOARD	
* 54	1-644-311-11	JOINT BOARD	
* 55	1-644-318-11	TRANSFORMER (A) BOARD	
* 56	1-644-315-11	FUSE BOARD	
* 57	1-533-213-31	HOLDER, FUSE	
* 58	A-4360-600-A	MAIN BOARD, COMPLETE (AEP,E)	
* 58	A-4360-613-A	MAIN BOARD, COMPLETE (Germany)	
* 59	1-644-319-11	SP.TM. BOARD	
* 60	A-4360-614-A	P.J. BOARD, COMPLETE (Germany)	
* 60	A-4360-601-A	P.J. BOARD, COMPLETE (AEP,E)	
* 61	1-644-321-11	OUTLET BOARD (AEP,Germany)	
* 62	3-703-244-00	BUSHING (2104), CORD (AEP,Germany)	
* 62	3-703-571-11	BUSHING (S) (4516), CORD (E)	
* 63	4-942-204-01	PLATE, GROUND	
* 64	4-949-235-01	HOOK	
* 65	4-957-886-01	PANEL, BACK (AE1)	

Ref.No.	Part No.	Description	Remark
* 65	4-957-886-11	PANEL, BACK (AE2)	
* 65	4-957-886-21	PANEL, BACK (Germany)	
* 65	4-957-886-31	PANEL, BACK (E)	
66	4-947-010-01	SCREW, FEEDER FIXED	
67	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
68	3-655-653-21	BAND (TAITON), BINDING (E)	
* 69	3-349-025-31	HOLDER, PC BOARD	
⚠CNJ1	1-526-696-31	OUTLET, AC (3 GANG) (E)	
⚠CNJ1	1-526-794-11	OUTLET, AC (AEP,Germany)	
⚠CP1	1-558-943-41	CORD, POWER (E)	
⚠CP1	1-575-651-21	CORD, POWER (AEP,Germany)	
⚠CP1	1-575-653-21	CORD, POWER (E)	
⚠F1	1-532-259-00	FUSE, TIME-LAG (T1.6A)	
⚠F2	1-532-286-00	FUSE, TIME-LAG (T2.5A) (AEP,Germany)	
⚠F3	1-532-259-00	FUSE, TIME-LAG (T1.6A) (E)	
⚠S901	1-571-515-11	SWITCH,POWER VOLTAGE SELECTION (E)	
⚠T1	1-423-625-11	TRANSFORMER, POWER (AEP)	
⚠T1	1-423-627-11	TRANSFORMER, POWER (Germany)	
⚠T1	1-423-649-11	TRANSFORMER, POWER (E)	

SECTION 5
ELECTRICAL PARTS LIST

FUNCTION

NOTE :
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

- AE2 : Model for Scandinavian countries, Switzerland, Spain and Portugal
- AE1 : Model for other European countries

Ref.No.	Part No.	Description	Remark
*	A-4360-605-A	FUNCTION BOARD, COMPLETE	
		**********	
		< CAPACITOR >	
C708	1-161-494-00	CERAMIC 0.022uF 25V	
C714	1-136-165-00	FILM 0.1uF 5% 50V	
C715	1-124-477-11	ELECT 47uF 20% 25V	
		< JACK >	
* CNJ301	1-691-244-11	SOCKET, CONNECTOR 10P	
* CNJ302	1-691-244-11	SOCKET, CONNECTOR 10P	
		< DIODE >	
D707	8-719-987-63	DIODE 1N4148M	
D708	8-719-987-63	DIODE 1N4148M	
D709	8-719-987-63	DIODE 1N4148M	
D710	8-719-987-63	DIODE 1N4148M	
D711	8-719-987-63	DIODE 1N4148M	
D712	8-719-987-63	DIODE 1N4148M	
D719	8-719-313-69	LED SEL3210S-CD (STANDBY)	
D720	8-719-313-72	LED SEL3810A-CD (SOURCE DIRECT)	
D722	8-719-313-72	LED SEL3810A-CD (DAT/TAPE1)	
D723	8-719-018-46	LED SEL3510C-CD (TAPE2)	
D724	8-719-018-46	LED SEL3510C-CD (AUX)	
D725	8-719-018-46	LED SEL3510C-CD (CD)	
D726	8-719-018-46	LED SEL3510C-CD (TUNER)	
D727	8-719-018-46	LED SEL3510C-CD (PHONO)	
		< IC >	
IC703	8-749-920-83	IC GP1U52XB	

Ref.No.	Part No.	Description	Remark
		< RESISTOR >	
R708	1-249-414-11	CARBON 560 5% 1/4W	
R709	1-249-411-11	CARBON 330 5% 1/4W	
R710	1-249-411-11	CARBON 330 5% 1/4W	
R711	1-249-411-11	CARBON 330 5% 1/4W	
R712	1-249-411-11	CARBON 330 5% 1/4W	
R713	1-249-411-11	CARBON 330 5% 1/4W	
R714	1-249-433-11	CARBON 22K 5% 1/4W	
R715	1-249-433-11	CARBON 22K 5% 1/4W	
R716	1-249-433-11	CARBON 22K 5% 1/4W	
R717	1-249-433-11	CARBON 22K 5% 1/4W	
R718	1-249-433-11	CARBON 22K 5% 1/4W	
R728	1-249-412-11	CARBON 390 5% 1/4W	
R737	1-249-413-11	CARBON 470 5% 1/4W	
R738	1-247-750-11	CARBON 680 5% 1/2W	
		< SWITCH >	
S701	1-554-303-21	SWITCH, TACTILE (POWER)	
S702	1-554-303-21	SWITCH, TACTILE (DAT/TAPE1)	
S703	1-554-303-21	SWITCH, TACTILE (TAPE2)	
S704	1-554-303-21	SWITCH, TACTILE (AUX)	
S705	1-554-303-21	SWITCH, TACTILE (CD)	
S706	1-554-303-21	SWITCH, TACTILE (TUNER)	
S707	1-554-303-21	SWITCH, TACTILE (PHONO)	
**********		**********	

FUSE H.P JOINT MAIN

Ref.No.	Part No.	Description			Remark
*	1-644-315-11	FUSE BOARD			
		**********			
*	1-533-213-31	HOLDER, FUSE			
		< CAPACITOR >			
C1	1-161-744-00	CERAMIC	0.01uF		400V
C901	1-136-153-00	FILM	0.01uF	5%	50V
C902	1-124-557-11	ELECT	1000uF	20%	25V
C903	1-124-903-11	ELECT	1uF	20%	50V
C904	1-124-477-11	ELECT	47uF	20%	25V
C919	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
* CN1	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P			
CN2	1-564-321-00	PIN, CONNECTOR 2P			
* CN3	1-564-321-00	PIN, CONNECTOR 2P			
CN5	1-564-687-11	PIN, CONNECTOR 3P (E)			
		< JACK >			
CNJ701	1-695-087-11	PIN, CONNECTOR (PC BOARD) 7P (CONTROL S)			
CNJ703	1-566-213-11	PIN, CONNECTOR 4P			
		< DIODE >			
D901	8-719-200-77	DIODE	10E2N		
D902	8-719-200-77	DIODE	10E2N		
D903	8-719-200-77	DIODE	10E2N		
D904	8-719-200-77	DIODE	10E2N		
D908	8-719-987-63	DIODE	1N4148M		
D909	8-719-987-63	DIODE	1N4148M		
		< FUSE >			
⚠F2	1-532-286-00	FUSE, TIME-LAG (T2.5A) (AEP, Germany)			
		< IC >			
IC901	8-759-820-84	IC	L78MR05		
		< TRANSISTOR >			
Q713	8-729-620-05	TRANSISTOR	2SC2603-EF		
		< RESISTOR >			
R735	1-249-425-11	CARBON	4.7K	5%	1/4W
R907	1-247-738-11	CARBON	82	5%	1/2W
		< RELAY >			
RY1	1-515-516-00	RELAY			

Ref.No.	Part No.	Description			Remark
		< TRANSFORMER >			
⚠T2	1-448-523-11	TRANSFORMER, POWER			
**********					
*	1-644-317-11	H.P. BOARD			
		**********			
		< JACK >			
J501	1-507-863-51	JACK, PHONE (HEADPHONES)			
		< RESISTOR >			
R535	1-247-747-11	CARBON	470	5%	1/2W
R635	1-247-747-11	CARBON	470	5%	1/2W
**********					
*	1-644-311-11	JOINT BOARD			
		**********			
		< JACK >			
CNJ702	1-568-319-11	SOCKET, CONNECTOR 8P			
		< CONNECTOR >			
CNP701	1-695-092-11	SOCKET, CONNECTOR 7P			
**********					
*	A-4360-600-A	MAIN BOARD, COMPLETE (AEP, E)			
		**********			
*	A-4360-613-A	MAIN BOARD, COMPLETE (Germany)			
		**********			
*	4-942-204-01	PLATE, GROUND			
		< CAPACITOR >			
C501	1-124-927-11	ELECT	4.7uF	20%	100V
C502	1-124-927-11	ELECT	4.7uF	20%	100V
C503	1-164-070-11	CERAMIC	100PF	5%	50V(Germany)
C504	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C505	1-124-477-11	ELECT	47uF	20%	25V
C506	1-162-193-31	CERAMIC	3.3PF	10%	50V
C507	1-124-477-11	ELECT	47uF	20%	25V
C508	1-124-477-11	ELECT	47uF	20%	25V
C509	1-161-959-00	CERAMIC	22PF	10%	500V
C510	1-161-959-00	CERAMIC	22PF	10%	500V
C511	1-136-163-00	FILM	0.068uF	5%	50V
C512	1-136-163-00	FILM	0.068uF	5%	50V
C601	1-124-927-11	ELECT	4.7uF	20%	100V
C602	1-124-927-11	ELECT	4.7uF	20%	100V
C603	1-164-070-11	CERAMIC	100PF	5%	50V(Germany)
C604	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C605	1-124-477-11	ELECT	47uF	20%	25V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description			Remark
C606	1-162-193-31	CERAMIC	3.3PF	10%	50V
C607	1-124-477-11	ELECT	47uF	20%	25V
C608	1-124-477-11	ELECT	47uF	20%	25V
C609	1-161-959-00	CERAMIC	22PF	10%	500V
C610	1-161-959-00	CERAMIC	22PF	10%	500V
C611	1-136-163-00	FILM	0.068uF	5%	50V
C612	1-136-163-00	FILM	0.068uF	5%	50V
C801	1-124-907-11	ELECT	10uF	20%	50V
C802	1-124-477-11	ELECT	47uF	20%	25V
C803	1-126-176-11	ELECT	220uF	20%	10V
C804	1-124-907-11	ELECT	10uF	20%	50V
C805	1-124-478-11	ELECT	100uF	20%	25V
C907	1-126-138-11	ELECT	4700uF	20%	50V
C908	1-126-138-11	ELECT	4700uF	20%	50V
C909	1-124-913-11	ELECT	470uF	20%	50V
C910	1-124-913-11	ELECT	470uF	20%	50V
C915	1-124-484-11	ELECT	220uF	20%	35V
C916	1-124-484-11	ELECT	220uF	20%	35V
C917	1-124-477-11	ELECT	47uF	20%	25V
C918	1-124-477-11	ELECT	47uF	20%	25V
		< CONNECTOR >			
* CN301	1-564-512-11	PLUG, CONNECTOR 9P			
* CN302	1-564-513-11	PLUG, CONNECTOR 10P			
* CN501	1-564-507-11	PLUG, CONNECTOR 4P			
* CN901	1-564-506-11	PLUG, CONNECTOR 3P			
		< JACK >			
CNJ101	1-568-321-11	SOCKET, CONNECTOR 10P			
CNJ102	1-568-321-11	SOCKET, CONNECTOR 10P			
		< DIODE >			
D501	8-719-933-36	DIODE	HZS6B1L		
D502	8-719-987-63	DIODE	1N4148M		
D503	8-719-987-63	DIODE	1N4148M		
D504	8-719-987-63	DIODE	1N4148M		
D601	8-719-933-36	DIODE	HZS6B1L		
D602	8-719-987-63	DIODE	1N4148M		
D603	8-719-987-63	DIODE	1N4148M		
D604	8-719-987-63	DIODE	1N4148M		
D801	8-719-200-77	DIODE	10E2N		
D802	8-719-987-63	DIODE	1N4148M		
D803	8-719-987-63	DIODE	1N4148M		
D905	8-719-302-38	DIODE	RBV-602-01		
D906	8-719-200-77	DIODE	10E2N		
D907	8-719-200-77	DIODE	10E2N		

Ref. No.	Part No.	Description			Remark
		< IC >			
IC801	8-759-111-68	IC	uPC1237HA		
IC902	8-759-231-56	IC	TA7809S		
IC903	8-759-245-82	IC	TA7909S		
		< COIL >			
L501	1-420-872-00	COIL, AIR CORE			
L601	1-420-872-00	COIL, AIR CORE			
		< TRANSISTOR >			
Q501	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q502	8-729-620-18	TRANSISTOR	2SA979-FG		
Q503	8-729-140-82	TRANSISTOR	2SA988-PAFAEA		
Q504	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q505	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q506	8-729-021-74	TRANSISTOR	2SA949-OY-TPE6 (AEP,E)		
Q507	8-729-209-15	TRANSISTOR	2SD2012		
Q508	8-729-021-73	TRANSISTOR	2SC2229-OY-TPE6 (AEP,E)		
Q509	8-729-020-82	TRANSISTOR	2SC3421-OY		
Q510	8-729-020-83	TRANSISTOR	2SA1358-OY		
Q511	8-729-021-64	TRANSISTOR	2SC4466-OPY		
Q512	8-729-021-65	TRANSISTOR	2SA1693-OPY		
Q513	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q514	8-729-224-62	TRANSISTOR	2SK246-GR		
Q601	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q602	8-729-620-18	TRANSISTOR	2SA979-FG		
Q603	8-729-140-82	TRANSISTOR	2SA988-PAFAEA		
Q604	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q605	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q606	8-729-021-74	TRANSISTOR	2SA949-OY-TPE6 (AEP,E)		
Q607	8-729-209-15	TRANSISTOR	2SD2012		
Q608	8-729-021-73	TRANSISTOR	2SC2229-OY-TPE6 (AEP,E)		
Q609	8-729-020-82	TRANSISTOR	2SC3421-OY		
Q610	8-729-020-83	TRANSISTOR	2SA1358-OY		
Q611	8-729-021-64	TRANSISTOR	2SC4466-OPY		
Q612	8-729-021-65	TRANSISTOR	2SA1693-OPY		
Q613	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q614	8-729-224-62	TRANSISTOR	2SK246-GR		
Q801	8-729-900-63	TRANSISTOR	DTA124ES		
		< RESISTOR >			
R501	1-249-423-11	CARBON	3.3K	5%	1/4W
R502	1-249-417-11	CARBON	1K	5%	1/4W
R503	1-249-421-11	CARBON	2.2K	5%	1/4W
R504	1-249-393-11	CARBON	10	5%	1/4W (Germany)
R505	1-249-415-11	CARBON	680	5%	1/4W
R506	1-247-704-11	CARBON	220	5%	1/4W
R507	1-247-704-11	CARBON	220	5%	1/4W

Ref.No.	Part No.	Description				Remark
R508	1-249-490-11	CARBON	27K	5%	1/2W	
R509	1-249-412-11	CARBON	390	5%	1/4W	(AEP, E)
R509	1-249-413-11	CARBON	470	5%	1/4W	(Germany)
R510	1-249-438-11	CARBON	56K	5%	1/4W	
R511	1-249-438-11	CARBON	56K	5%	1/4W	
R513	1-249-433-11	CARBON	22K	5%	1/4W	
R514	1-249-429-11	CARBON	10K	5%	1/4W	
R515	1-249-435-11	CARBON	33K	5%	1/4W	
R516	1-247-692-11	CARBON	22	5%	1/4W	
R517	1-249-425-11	CARBON	4.7K	5%	1/4W	
R518	1-249-419-11	CARBON	1.5K	5%	1/4W	
R519	1-247-692-11	CARBON	22	5%	1/4W	
R520	1-247-700-11	CARBON	100	5%	1/4W	
R521	1-247-700-11	CARBON	100	5%	1/4W	
R522	1-247-745-11	CARBON	330	5%	1/2W	
R523	1-249-455-11	CARBON	4.7	5%	1/4W	
R524	1-249-455-11	CARBON	4.7	5%	1/4W	
R525	1-216-361-00	METAL OXIDE	0.22	5%	2W	
R526	1-216-361-00	METAL OXIDE	0.22	5%	2W	
R527	1-247-704-11	CARBON	220	5%	1/4W	
R528	1-249-426-11	CARBON	5.6K	5%	1/4W	
R529	1-247-727-11	CARBON	10	5%	1/2W	
R530	1-247-727-11	CARBON	10	5%	1/2W	
R531	1-249-437-11	CARBON	47K	5%	1/4W	
R536	1-249-409-11	CARBON	220	5%	1/4W	
R537	1-249-417-11	CARBON	1K	5%	1/4W	
R538	1-249-423-11	CARBON	3.3K	5%	1/4W	
R601	1-249-423-11	CARBON	3.3K	5%	1/4W	
R602	1-249-417-11	CARBON	1K	5%	1/4W	
R603	1-249-421-11	CARBON	2.2K	5%	1/4W	
R604	1-249-393-11	CARBON	10	5%	1/4W	(Germany)
R605	1-249-415-11	CARBON	680	5%	1/4W	
R606	1-247-704-11	CARBON	220	5%	1/4W	
R607	1-247-704-11	CARBON	220	5%	1/4W	
R608	1-249-490-11	CARBON	27K	5%	1/2W	
R609	1-249-412-11	CARBON	390	5%	1/4W	(AEP, E)
R609	1-249-413-11	CARBON	470	5%	1/4W	(Germany)
R610	1-249-438-11	CARBON	56K	5%	1/4W	
R611	1-249-438-11	CARBON	56K	5%	1/4W	
R613	1-249-433-11	CARBON	22K	5%	1/4W	
R614	1-249-429-11	CARBON	10K	5%	1/4W	
R615	1-249-435-11	CARBON	33K	5%	1/4W	
R616	1-247-692-11	CARBON	22	5%	1/4W	
R617	1-249-425-11	CARBON	4.7K	5%	1/4W	
R618	1-249-419-11	CARBON	1.5K	5%	1/4W	
R619	1-247-692-11	CARBON	22	5%	1/4W	
R620	1-247-700-11	CARBON	100	5%	1/4W	
R621	1-247-700-11	CARBON	100	5%	1/4W	
R622	1-247-745-11	CARBON	330	5%	1/2W	
R623	1-249-455-11	CARBON	4.7	5%	1/4W	
R624	1-249-455-11	CARBON	4.7	5%	1/4W	
R625	1-216-361-00	METAL OXIDE	0.22	5%	2W	
R626	1-216-361-00	METAL OXIDE	0.22	5%	2W	
R627	1-247-704-11	CARBON	220	5%	1/4W	
R628	1-249-426-11	CARBON	5.6K	5%	1/4W	
R629	1-247-727-11	CARBON	10	5%	1/2W	
R630	1-247-727-11	CARBON	10	5%	1/2W	
R631	1-249-438-11	CARBON	56K	5%	1/4W	
R636	1-249-409-11	CARBON	220	5%	1/4W	
R637	1-249-417-11	CARBON	1K	5%	1/4W	
R638	1-249-423-11	CARBON	3.3K	5%	1/4W	
R801	1-249-427-11	CARBON	6.8K	5%	1/4W	
R802	1-249-441-11	CARBON	100K	5%	1/4W	
R803	1-249-428-11	CARBON	8.2K	5%	1/4W	
R804	1-249-439-11	CARBON	68K	5%	1/4W	
R805	1-249-430-11	CARBON	12K	5%	1/4W	
R806	1-216-433-00	METAL OXIDE	1.2K	5%	1W	(AEP, E)
R806	1-215-869-11	METAL OXIDE	1K	5%	1W	(Germany)
R905	1-249-385-11	CARBON	2.2	5%	1/6W	
R906	1-249-385-11	CARBON	2.2	5%	1/6W	
R913	1-216-478-11	METAL OXIDE	390	5%	3W	(AEP, E)
R913	1-216-477-11	METAL OXIDE	270	5%	3W	(Germany)
R916	1-215-915-11	METAL OXIDE	470	5%	3W	(AEP, E)
R916	1-216-478-11	METAL OXIDE	390	5%	3W	(Germany)

< VARIABLE RESISTOR >

RV501	1-238-011-11	RES, ADJ, CARBON 470 (DC BIAS L-CH)				
RV601	1-238-011-11	RES, ADJ, CARBON 470 (DC BIAS R-CH)				

< RELAY >

RY801	1-515-533-11	RELAY				

****

*	1-644-321-11	OUTLET BOARD (AEP, Germany)				

****

< JACK >

⚠CNJ1	1-526-794-11	OUTLET, AC (AEP, Germany)				

****

*	A-4360-601-A	P.J. BOARD, COMPLETE (AEP, E)				

****

*	A-4360-614-A	P.J. BOARD, COMPLETE (Germany)				

****

< CAPACITOR >

C101	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C102	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

P.J.

Ref.No.	Part No.	Description				Remark
C103	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C104	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C105	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C106	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C107	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C108	1-162-285-31	CERAMIC	180PF	10%	50V	
C109	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C110	1-124-907-11	ELECT	10uF	20%	50V	
C111	1-124-477-11	ELECT	47uF	20%	25V	
C112	1-162-282-31	CERAMIC	100PF	10%	50V	(AEP, E)
C112	1-162-286-31	CERAMIC	220PF	10%	50V	(Germany)
C113	1-130-480-00	MYLAR	0.0056uF	5%	50V	
C114	1-130-473-00	MYLAR	0.0015uF	5%	50V	
C115	1-124-927-11	ELECT	4.7uF	20%	100V	
C116	1-124-477-11	ELECT	47uF	20%	25V	
C117	1-124-925-11	ELECT	2.2uF	20%	100V	
C201	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C202	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C203	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C204	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C205	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C206	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C207	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C208	1-162-285-31	CERAMIC	180PF	10%	50V	
C209	1-162-284-31	CERAMIC	150PF	10%	50V	(Germany)
C210	1-124-907-11	ELECT	10uF	20%	50V	
C211	1-124-477-11	ELECT	47uF	20%	25V	
C212	1-162-282-31	CERAMIC	100PF	10%	50V	(AEP, E)
C212	1-162-286-31	CERAMIC	220PF	10%	50V	(Germany)
C213	1-130-480-00	MYLAR	0.0056uF	5%	50V	
C214	1-130-473-00	MYLAR	0.0015uF	5%	50V	
C215	1-124-927-11	ELECT	4.7uF	20%	100V	
C216	1-124-477-11	ELECT	47uF	20%	25V	
C701	1-124-472-11	ELECT	470uF	20%	10V	
C702	1-161-494-00	CERAMIC	0.022uF		25V	
C703	1-161-494-00	CERAMIC	0.022uF		25V	
C704	1-124-477-11	ELECT	47uF	20%	25V	
C705	1-164-159-11	CERAMIC	0.1uF		50V	

< CONNECTOR >

* CNP101	1-568-322-21	PLUG, CONNECTOR 10P	
* CNP102	1-568-322-21	PLUG, CONNECTOR 10P	

< DIODE >

D701	8-719-200-77	DIODE	10E2N
D702	8-719-200-77	DIODE	10E2N
D703	8-719-987-63	DIODE	1N4148M
D704	8-719-987-63	DIODE	1N4148M
D705	8-719-933-33	DIODE	HZS6A1L
D706	8-719-987-63	DIODE	1N4148M

< IC >

IC101	8-759-636-74	IC	M5218AP-22
IC102	8-759-801-01	IC	LC4966
IC701	8-759-802-52	IC	LC7818

< JACK >

J101	1-573-141-21	JACK 2P (PHONO)
* J102	1-573-142-21	JACK, PIN 4P (DAT/TAPE1)
* J103	1-573-142-21	JACK, PIN 4P (TAPE2)
J104	1-568-978-11	JACK 6P (TUNER/CD/AUX)

< TRANSISTOR >

Q101	8-729-900-36	TRANSISTOR	DTC124ES
Q102	8-729-900-63	TRANSISTOR	DTA124ES
Q701	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q702	8-729-900-63	TRANSISTOR	DTA124ES
Q703	8-729-900-63	TRANSISTOR	DTA124ES
Q704	8-729-900-63	TRANSISTOR	DTA124ES
Q705	8-729-900-63	TRANSISTOR	DTA124ES
Q706	8-729-900-63	TRANSISTOR	DTA124ES

< RESISTOR >

R101	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R102	1-249-417-11	CARBON	1K	5%	1/4W	
R103	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R104	1-249-417-11	CARBON	1K	5%	1/4W	
R105	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R106	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R107	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R108	1-249-418-11	CARBON	1.2K	5%	1/4W	
R109	1-249-418-11	CARBON	1.2K	5%	1/4W	(Germany)
R110	1-249-441-11	CARBON	100K	5%	1/4W	
R111	1-249-416-11	CARBON	820	5%	1/4W	
R112	1-247-897-11	CARBON	560K	5%	1/4W	
R113	1-249-437-11	CARBON	47K	5%	1/4W	
R114	1-249-409-11	CARBON	220	5%	1/4W	
R115	1-249-441-11	CARBON	100K	5%	1/4W	
R116	1-249-441-11	CARBON	100K	5%	1/4W	
R117	1-249-433-11	CARBON	22K	5%	1/4W	
R118	1-249-433-11	CARBON	22K	5%	1/4W	
R119	1-249-441-11	CARBON	100K	5%	1/4W	
R201	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R202	1-249-417-11	CARBON	1K	5%	1/4W	
R203	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R204	1-249-417-11	CARBON	1K	5%	1/4W	
R205	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R206	1-249-409-11	CARBON	220	5%	1/4W	(Germany)

Ref.No.	Part No.	Description				Remark
R207	1-249-409-11	CARBON	220	5%	1/4W	(Germany)
R208	1-249-418-11	CARBON	1.2K	5%	1/4W	
R209	1-249-418-11	CARBON	1.2K	5%	1/4W	(Germany)
R210	1-249-441-11	CARBON	100K	5%	1/4W	
R211	1-249-416-11	CARBON	820	5%	1/4W	
R212	1-247-897-11	CARBON	560K	5%	1/4W	
R213	1-249-437-11	CARBON	47K	5%	1/4W	
R214	1-249-409-11	CARBON	220	5%	1/4W	
R215	1-249-441-11	CARBON	100K	5%	1/4W	
R216	1-249-441-11	CARBON	100K	5%	1/4W	
R301	1-249-405-11	CARBON	100	5%	1/4W	
R401	1-249-405-11	CARBON	100	5%	1/4W	
R701	1-247-901-11	CARBON	820K	5%	1/4W	
R702	1-249-433-11	CARBON	22K	5%	1/4W	
R703	1-249-441-11	CARBON	100K	5%	1/4W	
R704	1-249-433-11	CARBON	22K	5%	1/4W	
R705	1-249-429-11	CARBON	10K	5%	1/4W	
R706	1-249-429-11	CARBON	10K	5%	1/4W	
R707	1-249-433-11	CARBON	22K	5%	1/4W	
R732	1-249-433-11	CARBON	22K	5%	1/4W	

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* A-4360-603-A PANEL BOARD, COMPLETE

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< CAPACITOR >

C301	1-130-481-00	MYLAR	0.0068uF	5%	50V
C302	1-130-474-00	MYLAR	0.0018uF	5%	50V
C303	1-136-159-00	FILM	0.033uF	5%	50V
C304	1-130-479-00	MYLAR	0.0047uF	5%	50V
C401	1-130-481-00	MYLAR	0.0068uF	5%	50V
C402	1-130-474-00	MYLAR	0.0018uF	5%	50V
C403	1-136-159-00	FILM	0.033uF	5%	50V
C404	1-130-479-00	MYLAR	0.0047uF	5%	50V
C709	1-161-494-00	CERAMIC	0.022uF		25V
C710	1-162-284-31	CERAMIC	150PF	10%	50V
C711	1-162-284-31	CERAMIC	150PF	10%	50V
C712	1-124-477-11	ELECT	47uF	20%	25V
C713	1-161-494-00	CERAMIC	0.022uF		25V
C717	1-161-494-00	CERAMIC	0.022uF		25V
C718	1-124-477-11	ELECT	47uF	20%	25V

< CONNECTOR >

CNP301	1-695-415-11	PIN, CONNECTOR (PC BOARD)	10P
CNP302	1-695-415-11	PIN, CONNECTOR (PC BOARD)	10P
* CNP702	1-568-320-11	PLUG, CONNECTOR 8P	

< DIODE >

D713	8-719-987-63	DIODE	1N4148M
D714	8-719-987-63	DIODE	1N4148M
D715	8-719-987-63	DIODE	1N4148M
D716	8-719-987-63	DIODE	1N4148M
D717	8-719-987-63	DIODE	1N4148M
D718	8-719-987-63	DIODE	1N4148M
D728	8-719-987-63	DIODE	1N4148M

< IC >

IC702	8-759-077-08	IC	M50761-291P
IC704	8-759-820-62	IC	LB1639

< TRANSISTOR >

Q707	8-729-904-39	TRANSISTOR	DTC114TS
Q708	8-729-904-39	TRANSISTOR	DTC114TS
Q709	8-729-900-63	TRANSISTOR	DTA124ES
Q710	8-729-806-30	TRANSISTOR	2SC4048
Q711	8-729-900-80	TRANSISTOR	DTC114ES
Q712	8-729-620-05	TRANSISTOR	2SC2603-EF

< RESISTOR >

R302	1-249-421-11	CARBON	2.2K	5%	1/4W
R303	1-249-426-11	CARBON	5.6K	5%	1/4W
R304	1-247-903-00	CARBON	1M	5%	1/4W
R305	1-247-903-00	CARBON	1M	5%	1/4W
R306	1-247-852-11	CARBON	7.5K	5%	1/4W
R308	1-247-870-11	CARBON	43K	5%	1/4W
R309	1-249-436-11	CARBON	39K	5%	1/4W
R310	1-249-437-11	CARBON	47K	5%	1/4W
R402	1-249-421-11	CARBON	2.2K	5%	1/4W
R403	1-249-426-11	CARBON	5.6K	5%	1/4W
R404	1-247-903-00	CARBON	1M	5%	1/4W
R405	1-247-903-00	CARBON	1M	5%	1/4W
R406	1-247-852-11	CARBON	7.5K	5%	1/4W
R408	1-247-870-11	CARBON	43K	5%	1/4W
R409	1-249-436-11	CARBON	39K	5%	1/4W
R410	1-249-437-11	CARBON	47K	5%	1/4W
R719	1-249-433-11	CARBON	22K	5%	1/4W
R720	1-249-433-11	CARBON	22K	5%	1/4W
R721	1-247-903-00	CARBON	1M	5%	1/4W
R722	1-249-423-11	CARBON	3.3K	5%	1/4W
R723	1-249-429-11	CARBON	10K	5%	1/4W
R724	1-249-417-11	CARBON	1K	5%	1/4W
R725	1-249-417-11	CARBON	1K	5%	1/4W
R726	1-249-393-11	CARBON	10	5%	1/4W
R727	1-249-425-11	CARBON	4.7K	5%	1/4W
R729	1-247-752-11	CARBON	1K	5%	1/2W
R730	1-249-421-11	CARBON	2.2K	5%	1/4W
R731	1-249-421-11	CARBON	2.2K	5%	1/4W

PANEL | SP.SW. | SP.TM. | TRANSFORMER(A) | TRANSFORMER(B) | VOL

Ref.No.	Part No.	Description				Remark
R733	1-249-441-11	CARBON	100K	5%	1/4W	
R734	1-249-425-11	CARBON	4.7K	5%	1/4W	
R736	1-249-419-11	CARBON	1.5K	5%	1/4W	
		< VARIABLE RESISTOR >				
RV301	1-238-513-11	RES, VAR, CARBON 150K/150K (BALANCE)				
RV302	1-238-514-11	RES, VAR 250K/250K (TREBLE)				
RV303	1-238-515-11	RES, VAR, CARBON 520K/520K (BASS)				
		< SWITCH >				
S301	1-572-642-11	SWITCH, PUSH (1 KEY)(SOURCE DIRECT)				
		< CRYSTAL >				
X701	1-577-077-11	OSCILLATOR, CERAMIC (400KHz)				
**********						
*	1-644-316-11	SP.SW. BOARD				
		**********				
		< SWITCH >				
S501	1-692-168-11	SWITCH, ROTARY SLIDE (SPEAKER)				
**********						
*	1-644-319-11	SP.TM. BOARD				
		**********				
		< CAPACITOR >				
C513	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C514	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C515	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C516	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C517	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C613	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C614	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C615	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C616	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
C617	1-136-157-00	FILM	0.022uF	5%	50V	(Germany)
		< CONNECTOR >				
* CN502	1-564-509-11	PLUG, CONNECTOR 6P				
		< RESISTOR >				
R532	1-247-727-11	CARBON	10	5%	1/2W	(Germany)
R533	1-247-727-11	CARBON	10	5%	1/2W	(Germany)
R632	1-247-727-11	CARBON	10	5%	1/2W	(Germany)
R633	1-247-727-11	CARBON	10	5%	1/2W	(Germany)
		< TERMINAL >				
TM501	1-537-235-11	TERMINAL BOARD (SP)(AE1,E)				
TM501	1-537-227-11	TERMINAL BOARD (SP)(AE2)				
TM501	1-537-228-11	TERMINAL BOARD (SP)(Germany)				
**********						
*	1-644-318-11	TRANSFORMER (A) BOARD				
		**********				
		< CONNECTOR >				
* CN4	1-580-633-11	PIN, CONNECTOR 5P (E)				
		< FUSE >				
⚠F1	1-532-259-00	FUSE, TIME-LAG (T1.6A)				
⚠F3	1-532-259-00	FUSE, TIME-LAG (T1.6A)(E)				
**********						
*	1-644-320-11	TRANSFORMER (B) BOARD				
		**********				
		< CAPACITOR >				
C905	1-136-165-00	FILM	0.1uF	5%	50V	
C906	1-136-165-00	FILM	0.1uF	5%	50V	
**********						
*	1-644-313-11	VOL BOARD				
		*********				
		< CAPACITOR >				
C719	1-136-165-00	FILM	0.1uF	5%	50V	
		< VARIABLE RESISTOR >				
RV304	1-241-921-11	RES, VAR, CARBON 120K/120K (VOLUME)				
**********						
		MISCELLANEOUS				
		**********				
67	1-569-007-11	ADAPTER, CONVERSION 2P (E)				
⚠CNJ1	1-526-696-31	OUTLET, AC (3 GANG)(E)				
⚠CP1	1-558-943-41	CORD, POWER (E)				
⚠CP1	1-575-651-21	CORD, POWER (AEP,Germany)				
⚠CP1	1-575-653-21	CORD, POWER (E)				
⚠F1	1-532-259-00	FUSE, TIME-LAG (T1.6A)				
⚠F2	1-532-286-00	FUSE, TIME-LAG (T2.5A)(AEP,Germany)				
⚠F3	1-532-259-00	FUSE, TIME-LAG (T1.6A)(E)				
⚠S901	1-571-515-11	SWITCH,POWER VOLTAGE SELECTION (E)				
⚠T1	1-423-625-11	TRANSFORMER, POWER (AEP)				
⚠T1	1-423-627-11	TRANSFORMER, POWER (Germany)				
⚠T1	1-423-649-11	TRANSFORMER, POWER (E)				
**********						

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		******************************	
	1-693-131-11	REMOTE COMMANDER (RM-S311)	
	2-181-754-01	COVER, BATTERY	
	3-756-897-11	MANUAL, INSTRUCTION (AEP, E) (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
	3-756-897-41	MANUAL, INSTRUCTION (AEP) (GERMAN, DUTCH, SWEDISH, ITALIAN)	
	3-756-897-51	MANUAL, INSTRUCTION (Germany) (GERMAN)	
*	4-945-810-02	CUSHION (LEFT)	
*	4-945-811-01	CUSHION (RIGHT)	
*	4-958-313-01	INDIVIDUAL CARTON	

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HARDWARE LIST

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#1	7-682-548-09	SCREW +B 3X8
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#4	7-685-648-79	SCREW +BVTP 3X12 TYPE2
#5	7-621-849-00	SCREW (BV/RING)
#6	7-682-560-04	SCREW +BVTT 4X6 (S)
#7	7-685-871-01	SCREW +BVTT 3X6 (S)